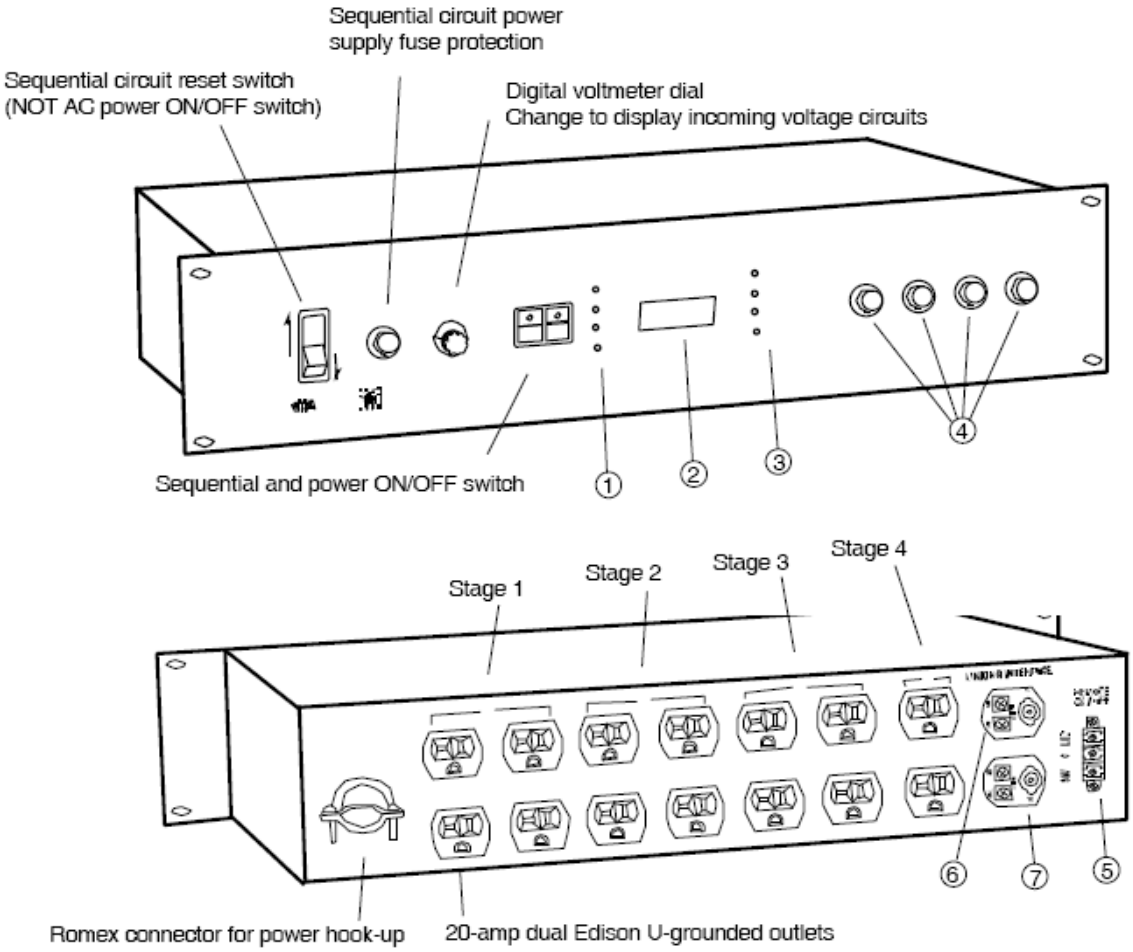
PD420VS OWNER'S MANUAL

(Insert to 6MAN-028)

CONDITIONED POWER DISTRIBUTION
SEQUENTIAL POWER UP/POWER DOWN HIGH AMP OUTPUT



① 1-4 steps/stages sequential power up/down, and 1,5,10,30,second pre-sets and manual mode

② Digital voltmeter display of incoming line AC power

③ Protection "ON" indicator (Note: Protection L.E.D. indicators may produce a slight glow in power "OFF" mode when no load is present at corresponding outlets)

④ Circuit breakers—one per 20 amp circuit

⑤ 3-pin terminal block for remote sequential turn-on/off

⑥ Input linking connectors (RCA phono jack or screw terminals)

⑦ Output linking connectors (RCA phono jack or screw terminals)

ETA SYSTEMS™ Leading by Design.™

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SPECIFICATIONS:	PD420VS
Dimensions	19" L x 12" D x 3 ½" H (2 units high)
Weight	17 lbs.
Housing Quality	Black powder coated chassis, black anodized aluminum front panel
Electrical	120/208 three phase or 120/240 single phase 50/60 Hz
Max. amps	80/unit, 20/circuit
Max. watts	9600/unit, 2400/circuit
Spike/surge protection	Line to neutral, neutral to ground, line to ground
Clamping level	200V peak
Response time	1 nanosecond
Max. surge voltage	6000V per 20 amp circuit
Max. surge current	26,000 amps
Max. spike energy	630 joules total
Noise attenuation	Transverse > 35 dB, 1.5 kHz to 200 mHz
Certification	ETL Listing pending

PD420VS Features

- Microprocessor monitored sequential power distribution system
- Four power up/down steps or stages of distributed and conditioned power
- Four pre-set power up/down intervals of 1, 5, 10 or 30 seconds
- Optional manual setting for up to 240 seconds between intervals
- Four 20 amp circuits, 9600 watts, total input per unit - 80 total amps
- 2 or 4 AC outlets per 20 amp circuit, 14 outlets total, conditioned and protected
- Single or three-phase power up
- Each circuit, breaker protected on front panel
- "Always on" digital voltmeter readout for all 3 phases
- Spike and surge protected, each circuit
- EMI/RFI filtered, each circuit
- External 0.125 amp fuse protected transformer
- Three year limited warranty
- Linking Feature: PD420VS units are shipped with the ability to be linked or daisy chained.

All linked units function as slaves, however, slaves can be set to specific time delays. Any number of units can be linked together with a distance of up to 1000 feet between each location.

IMPORTANT NOTE: For operating instructions of sequential turn-on and linking features, 3-wire remote interface, and remote relay funtion, see pages 6-8 of the PD11 Pro Series Owners Manual.

REMOTE OPERATION:
External 3-pin screw terminal block for simple 3-wire hook-up is located on rear panel. Connection requires user provided ON/OFF switch and L.E.D. indicator.

Programming Manual Time Delays

Step 1: Follow above instruction to activate L.E.D. 4
Step 2: Depress the UP/ON switch one more time to activate manual programming time delay mode
Step 3: All 4 red L.E.D.s to the right will be lit to indicate manual mode
Step 4: The UP/ON switch green L.E.D. will be lit
Step 5: Depress the UP/ON switch to start manual delay programming—can program from 5 sec. to 240 sec. delay
Step 6: Depress the OFF/DOWN to stop the manual delay timing
Step 7: Depress both the OFF and ON switches to finish

PD420VS POWER HOOK-UP REQUIREMENTS:

WARNING: Do not remove cover. No user serviceable parts inside. Refer servicing and hook-up to qualified individuals only.

DANGER: Due to life threatening shock hazard, hook-up of this power distribution pack must be made by qualified electricians only.

DANGER: Shock hazard, disconnect power before removing lid, or for servicing.

The PD420VS is designed for use on Three Phase (3Ø) WYE 120/208V 4-pole 5-wire grounding electrical service. With the ability to operate on Single Phase (1Ø) 120/240V 3-pole 4-wire grounding electrical service, (easily configured internally).

DO NOT connect high voltage leg of DELTA type systems (the higher voltage will damage sensitive equipment connected this way)—see NOTE below.

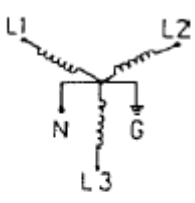
Minimum recommended AWG (American Wire Gauge) for electrical hook-up
(90° C Copper Wire).

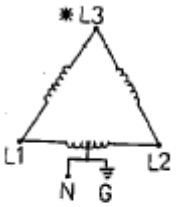
3Ø	1Ø	Position	Color
#8 AWG	#6 AWG	Ground	Green
#8 AWG	#6 AWG	Neutral	White
#8 AWG	#6 AWG	Line 1	Black
#8 AWG	#6 AWG	Line 2	Red
#8 AWG	N/C	Line 3	Blue

Follow National Electrical Code, or Local Electrical Code when sizing input electrical supply lines.

NOTE: Delta systems have one (1) leg at a higher potential (208 Volts) in reference to neutral, sometimes termed "Crazy Leg", or "High Leg" typically the orange color is reserved for designation of this line.
Do not connect this leg into the **PD420VS.**

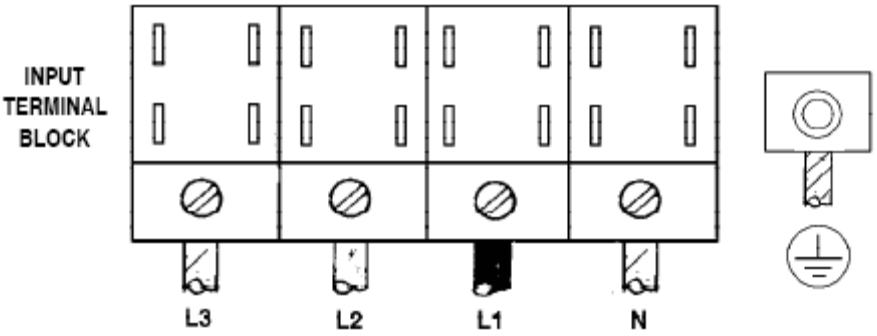
SERVICE (SUPPLY) CONFIGURATIONS



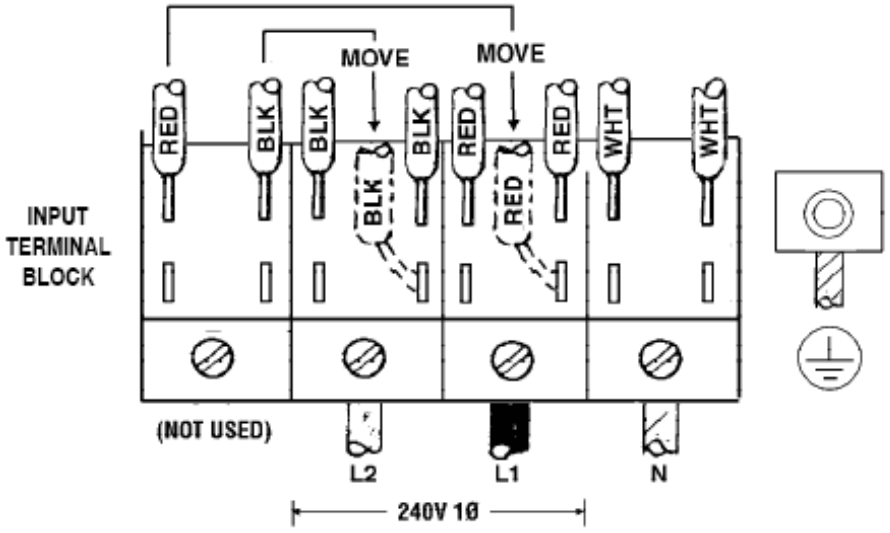


3Ø WYE 120/208V	**3Ø DELTA** 120/240V
L1-L2 = 208V	L1-L2 = 240V
L2-L3 = 208V	L2-L3 = 240V
L3-L1 = 208V	L3-L1 = 240V
L1-N = 120V	L1-N = 120V } L1-N-L2 = 1Ø
L2-N = 120V	L2-N = 120V }
L3-N = 120V	*L3-N = 208V
Ø = PHASE symbol	* DO NOT connect this leg to the PD66 or the PD620

INPUT POWER CONNECTION FOR 120/208V THREE-PHASE WIRING (120/208V 3Ø WYE SYSTEM)



INPUT POWER CONNECTION FOR 120/240V SINGLE PHASE WIRING (2 LEGS OF 120/240V 3Ø DELTA SYSTEM)



120/240 1Ø WIRING

- Move unit red wire from terminal block L3 terminal to L1 terminal (L1 will now contain three red wires)
- Move unit black wire from terminal block L3 terminal to L2 terminal (L2 will now contain three black wires)
- Increase supply lines gauge size to accommodate the ADDITIONAL 20 amps (2400 VA) on each leg

PD420VS (80 Amp Total)

Breaker	Outlets (Sequential State)
No. 1 20 amp	No. 1 (2) NEMA 5-20R (Duplex Receptacle) Sequential Stage 1
No. 2 20 amp	No. 2 (2) NEMA 5-20R (Duplex Receptacle) Sequential Stage 2
No. 3 20 amp	No. 3 (2) NEMA 5-20R (Duplex Receptacle) Sequential Stage 3
No. 4 20 amp	No. 4 (1) NEMA 5-20R (Duplex Receptacle) Sequential Stage 4

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